

WHAT IS CLAIMED IS:

1. A mattress comprising:
a mattress skin defining an enclosed space, the mattress skin comprising first and second walls, wherein the walls are oppositely configured to each other;
5 a plurality of strings interconnecting the walls within the enclosed space, each of the strings having two ends, wherein one end connects with the first wall, and wherein the other end connects with the second wall; and
a resilient material located within the enclosed space, wherein at least part of the strings are embedded in the resilient material while interconnecting the walls.
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2. The mattress of Claim 1, wherein the first and second walls are arranged substantially parallel to each other.
3. The mattress of Claim 1, wherein the mattress skin defines the enclosed space substantially air-tight or liquid-tight.
- 15 4. The mattress of Claim 1, wherein the enclosed space is filled with gas or liquid.
5. The mattress of Claim 1, wherein the strings interconnecting the walls are substantially perpendicular to the walls connected therewith.
6. The mattress of Claim 1, wherein the strings are made of a substantially
20 non-elastic material.
7. The mattress of Claim 1, wherein a tensile strength of the string is 120 daN/cm or more.
8. The mattress of Claim 1, wherein the strings are of substantially same in length.
- 25 9. The mattress of Claim 1, wherein the strings interconnecting the walls through the resilient material are substantially straight.
10. The mattress of Claim 1, wherein a string density is at least one string per one square centimeter of the inner surfaces.
11. The mattress of Claim 1, wherein a string density is at least three strings
30 per one square centimeter of the inner surfaces.

12. The mattress of Claim 1, wherein the resilient material substantially fills up the enclosed space.

13. The mattress of Claim 1, wherein the resilient material partly fills the enclosed space.

5 14. The mattress of Claim 1, wherein the resilient material comprises a porous body allowing gas or liquid to pass therethrough.

15. The mattress of Claim 1, wherein the resilient material comprises a foam material.

10 16. The mattress of Claim 1, wherein the resilient material is made of a resin selected from the group consisting of polyurethane, polyethylene, polypropylene, latex, polyvinyl chloride.

17. The mattress of Claim 1, further comprising an extra skin and a cushion member, wherein the extra skin encloses the mattress skin and the cushion member.

15 18. A method of manufacturing a mattress, comprising:
providing first and second walls;
interconnecting the walls with a plurality of strings, each string having two ends, wherein one end connects with the first wall, wherein the other end connects with the second wall, and wherein the walls are oppositely configured to each other;

20 separating the interconnected opposite walls from each other with a distance so as to define a space therebetween; and

providing a resilient material in the space while maintaining the inner surfaces separated, wherein at least part of the strings are embedded in the resilient material provided in the space.

25 19. The method of Claim 18, further comprising coupling at least one wall with the first and second walls so as to enclose the space.

20. The method of Claim 19, further comprising filling gas or liquid into the enclosed space of the mattress.

30 21. The method of Claim 18, wherein the providing resilient material comprises embedding at least part of the strings in the resilient material with the connections of the strings with the wall substantially intact.

22. The method of Claim 18, wherein the providing resilient material comprises generating foam.

23. The method of Claim 22, wherein the generation of foam comprises injecting a foam generating composition into the space and initiating foaming.

5 24. The method of Claim 23, wherein the initiation of foaming comprises subjecting the composition injected in the space to an elevated temperature.

25. The method of Claim 24, wherein the initiation of foaming comprises placing the intermediate for manufacturing a mattress in an oven at an elevated temperature.

10 26. The method of Claim 18, wherein during the providing resilient material, the distance between the wall are maintained substantially unchanged.

27. A mattress containing gas or liquid, comprising:

a pair of top and bottom sheets disposed to face each other on top and bottom sides;

15 threads connected to said top and bottom sheets so that said sheets can be maintained at a constant spacing when the mattress is filled with gas or liquid;

a side sheet connected to said top and bottom sheets; and

20 a foamed body in which said threads between said top and bottom sheets are embedded.

28. The mattress as claimed in Claim 27, wherein said top and bottom sheets have respective wings at margins of said top and bottom sheets extending beyond portions in which said sheets are connected by said threads.

29. A mattress assembly comprising:

25 a mattress containing gas or liquid as claimed in Claim 27,
at least one cushion member disposed on a lateral side of said mattress,
and

a cover for wrapping said mattress and said cushion member.

30 30. A method of manufacturing a mattress containing gas or liquid, comprising:
placing top and bottom sheets to face each other,

connecting said top and bottom sheets with threads except for margins of said top and bottom sheets ,

5 keeping said top and bottom sheets with a constant spacing by placing said sheets in a mattress mold and by securing said margins of said sheets to the mold, and

providing a foamed body by injecting a foam material into a space between said top and bottom sheets placed in said mattress mold and by initiating foaming of said foam material.

10 31. An apparatus for manufacturing a mattress for bedding, the mattress having a top wall, a bottom wall and a lateral wall connecting the top and bottom wall, comprising:

15 a mattress mold comprising a bottom panel, a side rim and a top panel, wherein the bottom panel is of a size corresponding to the bottom wall of said mattress, wherein the side rim is capable of being connected to said bottom panel and is of a height corresponding to the lateral wall of said mattress, and wherein the top panel is configured to be connected to said side rim and is of the size corresponding to a top surface of said mattress;

a foam material supplying device for supplying a foam material having a tube extending within said mattress mold ; and

20 wherein margins of said bottom panel, side rim and top panel are provided with inclined surfaces abutted against each other when said panels and rim are assembled into a closed arrangement.